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To: wtc@nist.gov
Cc: dlowe@nist.gov
Subject: WTC Draft Final Report Comment Form for Report: NCSTAR 1

Information Submitted on: 7/27/2005.

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Report Number : NCSTAR 1
Page Number : 211

Paragraph : paragraph 4, sentence 3
recommendation 17, last sentence: "Stairwell and exit capacity should be adequate to accommodate counterflow due to emergency access by responders. "
Comment : In addition to □stairwell and exit□ use the broaden term □means of evacuation and access□

Comment Reason : Stairwells are no longer the only means of evacuation and access. New technologies and solutions for emergency evacuation and access exist today; codes and standards are already in development, which would enable the use of these solutions. These technologies may provide additional capacity for evacuation, timely access for emergency responders, and equitable evacuation for mobility-impaired and all occupants. These technologies may well retrofit to existing building.

The language of the recommendations should be broad enough to include all present and future means of evacuation and access.

Revision Suggestion : The capacity of stairwells and exits, together with other means of evacuation and access should be adequate to accommodate counterflow due to emergency access by responders.

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Paragraph : paragraph 7 (recommendation 7, section C) , sentence 1-2

Comment : 1. Use the term ☐means of evacuation and access☐ instead of the word ☐stairwell.☐

2. Add the option to use external evacuation and access technologies to provide sufficient evacuation capacity.

Comment Reason : Stairwells are no longer the only possible means of evacuation and access. New technologies and solutions for emergency evacuation and access exist today; codes and standards are already in development, which would enable the use of these solutions. These technologies can provide additional capacity for evacuation, timely access for emergency responders, and equitable evacuation for mobility-impaired and all occupants. These technologies may well retrofit to existing building.

The language of the recommendations should be broad enough to include all present and future means of evacuation and access.

Revision Suggestion : If protected/hardened elevators are provided for emergency responders but become unusable during emergency, due to a malfunction or a conventional treat whose magnitude exceeds the magnitude considered in design, sufficient means of evacuation and access capacity should be provided to ensure timely emergency responders access to buildings that are undergoing full evacuation. Such capacity could be provided either via dedicated stairways for fire services use or by building sufficient stairway capacity (i.e., number and width of stairways and/or use of scissor stairs credited as a single stair) or by external evacuation and access technologies to accommodate the evacuation of building occupants while allowing access to emergency responders with minimal hindrance from occupant counterflow.

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Paragraph : paragraph 4 (Recommendation 18) sentences 1-2
Comment : Include evacuation and access systems as a possible egress component.
Comment Reason : Stairs and elevators are no longer the only means of evacuation and access. New technologies and solutions for emergency evacuation and access exist today; codes and regulations are in process to enable the use of these solutions. These technologies may provide additional capacity for evacuation, timely access for emergency responders, and equitable evacuation for mobility-impaired and all occupants. These technologies may well retrofit to existing buildings.
The language of the recommendations should be broad enough to include all present and future means of evacuation and access.

Revision Suggestion : NIST recommends that egress systems should be designed:
(1) to maximize remoteness of egress components (i.e., stairs, elevators, evacuation and access systems, exits) without negatively impacting the average travel distance;

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Paragraph : paragraph 3 (recommendation 20), 1st sentence
Comment : Change the term "exterior escape devices" to "exterior escape and access devices." Add "additional evacuation capacity" to the attributes of these technologies.
Comment Reason : Some of the existing technologies of exterior escape enable emergency personnel access up and into elevated floors of the building and additional evacuation capacity.

Revision Suggestion : NIST recommends that the full range of current and next generation evacuation technologies should be evaluated for future use, including protected/hardened elevators, exterior escape and access devices, and stairwell navigation devices, which may allow all occupants an equal opportunity for evacuation, additional evacuation capacity and facilitate emergency response access.

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Paragraph : paragraph 5 (recommndation 21), sentences 1-2

Comment : Use the broaden term "evacuation and access systems", describes variety of solutions that provide timely access to responders and evacuation of mobility-impaired persons. Use □external evacuation and access systems□ as additional type of system.

Comment Reason : Fire-protected and structurally hardened elevators are only one type of solution that may provide timely access to responders and evacuation of mobility-impaired persons. The language of the recommendations should be broad enough to include all present and future means of evacuation and access that provide these benefits.

Revision Suggestion : NIST recommends the installation of evacuation and access systems (i.e. fire-protected and structurally hardened elevators or external evacuation and access systems) to provide timely emergency access to responders and allowing evacuation of mobility-impaired building occupants. In tall buildings, consideration also should be given to installing such systems for use by all occupants.

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